Broadcom 5300 California Avenue Irvine, CA 92617 broadcom.com



October 4, 2016

Ex Parte

Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street SW Washington, DC 20554

Re: Notice of Oral Ex Parte: Current Trends in LTE-U and LAA Technology, ET Docket No. 15-105

Dear Ms. Dortch:

On September 30, 2016, Paula Boyd and Scott Blue of Microsoft, and David Recker, Vinko Erceg, and Christopher Szymanski of Broadcom, met with Apasia Paroutsas, Martin Doczkat, Michael Ha, Rashmi Doshi, Axel Rodriguez, Kwok Chan, Matthew Hussey, and Ira Keltz of OET and Paul Powell of the WTB to discuss the above-referenced proceeding.

In particular Paula, Scott, Vinko, Chris and David provided updates on carrier aggregation standardization within the Third Generation Partnership Project (3GPP) as outlined in the attached presentation. They explained that in addition to License Assisted Access (LAA), there were two forms of LTE-WLAN Aggregation also standardized within Release 13 that used Wi-Fi protocols over the unlicensed spectrum. Broadcom detailed that one of these, LTE-WLAN Radio Level Integration with IPSec Tunnel (LW-IP), was designed to re-use existing equipment and handsets, could be delivered largely via software upgrades, and as a result could provide significant benefits to carriers in a timely fashion.

In a separate meeting, the Microsoft and Broadcom representatives also met with Rashmi Doshi, Matthew Hussey Ira Keltz, Julius Knapp and Paul Powell. They continued their discussion of the benefits of Wi-Fi based carrier aggregation. In addition, they explained the relationship between the European Telecommunications Standards Institute (ETSI) and the 3GPP standardization process, and how decisions made by ETSI will likely add additional coexistence requirements for LAA equipment placed on the European market. They provided their view on the Wi-Fi Alliance LTE-U Coexistence Test Plan, and the importance of proper implementation of the test plan. Finally, they sought clarification on OET's interpretation of LAA vs other forms of Unlicensed LTE.

Pursuant to the Commission's rules, a copy of this notice is being filed electronically in the above-referenced docket. If you require any additional information please contact the undersigned.

Sincerely,

/s/ Christopher Szymanski Christopher Szymanski Director, Product Marketing and Government Affairs

cc: meeting participants